

We claim:

1. A method of manufacturing a plurality of hybrid electronic circuits for active implantable medical devices, comprising:

- a) providing a flat collective plate-substrate comprising, on a first surface, a plurality of repeating patterns of a contact area for connection to at least one chip, and a second surface opposite the first surface having like plurality of repeating patterns of a metallization area for receiving at least one of an active SMC component, a passive SMC component, and a connector element, wherein said collective plate-substrate pluralities of contact areas and metallization areas correspond to a plurality of implantable device electronic circuits;
- b) gluing on the first surface of the collective plate-substrate a second plurality of chips, wherein each of said implantable device electric circuits has at least one corresponding chip,
- c) cabling each of said glued chips to an associated contact area,
- d) pouring a coating resin over said first surface of the plate-substrate, and forming a uniform thickness layer of coating resin,
- e) hardening the coating resin,
- f) cutting the collective plate-substrate into a plurality of individual substrates, each substrate having on its first surface at least one glued chip coated by the resin, each individual substrate corresponding to an individual implantable device electric circuit; and

- g) mounting at least one SMC component and/or a connector element to the second surface of each individual substrate, to form said plurality of electric circuits of the implantable devices.

2. The process of claim 1, wherein the collective plate-substrate further comprises a peripheral marginal area and wherein stage d) further comprises spreading the resin over said peripheral area by gravity, and wherein stage f) further comprises cutting off the peripheral marginal area.

3. The process of claim 1, further comprising, after stage e), depositing a uniform metal layer on the hardened coating resin layer.

4. An active implantable medical device electronic circuit made by the process of claim 1, comprising a substrate supporting on its first surface, at least one chip and on its second surface at least one of an active SMC component, a passive SMC component, and a connector element, characterized in that, on the first surface of the substrate is a layer of coating resin covering the circuit and chip, said layer being of a uniform thickness and extending in two dimensions from one cut edge to another cut edge of the substrate, the cut edge comprising sides of the substrate and its resin layer, said sides being flat sides perpendicular to the first surface of the substrate.

5. An active implantable medical device electronic circuit made by the process of claim 2, comprising a substrate supporting on its first surface at least one chip and on its second surface at least one of an active SMC component, a passive SMC component, and a connector element, characterized in that, on the first surface of the substrate is a layer of coating resin covering the circuit and chip, said layer being of a uniform thickness and extending in two dimensions from one cut edge to another cut edge of the substrate, the cut edge comprising sides

of the substrate and its resin layer, said sides being flat sides perpendicular to the first surface of the substrate.

6. An active implantable medical device electronic circuit made by the process of claim 3, comprising a substrate supporting on its first surface at least one chip and on its second surface at least one of an active SMC component, a passive SMC component, and a connector element, characterized in that, on the first surface of the substrate is a layer of coating resin covering the circuit and chip, said layer being of a uniform thickness and extending in two dimensions from one cut edge to another cut edge of the substrate, the cut edge comprising sides of the substrate and its resin layer, said sides being flat sides perpendicular to the first surface of the substrate.